## What is claimed is:

- 1. A method for the treatment of varices, comprising the steps of:
  - a. inserting a catheter into a blood vessel and advancing a distal end of said catheter to a position proximate to at least one varix;
  - b. inserting an optical waveguide, whose proximal end is connected to a radiation source and whose distal end comprises a radiation distribution means, into said catheter;
  - c. advancing said distal end of said waveguide through said distal end of said catheter to a predetermined point near said at least one varix;
  - d. irradiating said varix with radiation from said radiation source so as to cause closure of said at least one varix.
- 2. The method for treatment of varices according to claim 1, wherein said waveguide is selected from the group consisting of an optical fiber and an optical fiber bundle.
- 3. The method for treatment of varices according to claim 1, wherein said at least one varix is selected from the group consisting of a varicocele, a female pelvic varix, and an oesophageal varix.
- 4. The method for treatment of varices according to claim 1, wherein said radiation distribution device is selected from a group consisting of a bare fiber tip and a diffuser.
- 5. The method for treatment of varices according to claim 1, wherein said radiation source is selected from a group consisting of a diode laser and a diode laser array.
- 6. The method for treatment of varices according to claim 1, wherein said radiation has a wavelength of 980 nm.
- 7. The method for treatment of varices according to claim 1, wherein said predetermined point is 1 cm from said distal end of said catheter.
- 8. The method for treatment of varices according to claim 1, wherein said irradiation step is accomplished by employing a series of pulses.

- 9. The method for treatment of varices according to claim 1, comprising the additional step of utilizing x-ray and angiographic imaging to view a path of said catheter during said catheter insertion step.
- 10. The method for treatment of varices according to claim 1, comprising the additional step of utilizing echo color doppler ultrasound to view a path of said catheter during said catheter insertion step.
- 11. The method for treatment of varices according to claim 1, comprising the additional step of performing an additional angiography after said irradiation step to confirm closure of said varix.
- 12. The method for treatment of varices according to claim 2, wherein said optical fiber has a diameter of preferably 400 microns.